CLAIMS

What is claimed is:

1. A method, comprising:

receiving accelerated graphics port (AGP) transaction requests at a first bus interface from a core logic device;

buffering the received AGP transaction requests using a request queue coupled to the first bus interface;

exchanging the AGP transaction requests using a second bus interface for access to the first bus interface between the core logic device and a graphics controller; and

arbitrating access to the first bus interface using a request arbiter coupled to the second bus interface.

2. The method of claim 1, further comprising:

initiating data transactions by the graphics controller, and receiving data transactions initiated by the core logic device using a third bus interface;

exchanging the AGP transaction requests for access to the second bus interface between the core logic device and the graphics controller; and

arbitrating access to the second bus interface using a data transaction arbiter coupled to the third bus interface.

3. The method of claim 2, further comprising:

initiating data transactions by the graphics controller, and receiving data transactions initiated by the core logic device using a fourth bus interface;

exchanging the AGP transaction requests for access to the third bus interface between the core logic device and the graphics controller; and

arbitrating access to the third bus interface using a data transaction arbiter coupled to the fourth bus interface.

4. The method of claim 1, further comprises implementing a common, distributed arbitration mechanism using the request arbiter and a corresponding request arbiter of the core logic device.

5. A system, comprising:

a storage medium;

a processor coupled with the storage medium; and

a graphics controller coupled to the storage medium and the processor, the graphics controller having

a first bus interface to receive accelerated graphics port (AGP) transaction requests from a core logic device;

a request queue coupled to the first bus interface to buffer received AGP transaction requests;

a second bus interface to exchange requests for access to the first bus interface between the core logic device and a graphics controller; and

a request arbiter coupled to the second bus interface to arbitrate access to the first bus interface.

6. The system of claim 5, wherein the graphic controller further comprising:

a third bus interface to initiate data transactions by the graphics controller and to receive data transactions initiated by the core logic device;

a fourth bus interface to exchange requests for access to the third bus interface between the core logic device and the graphics controller; and

a data transaction arbiter coupled to the fourth bus interface to arbitrate access to the fourth bus interface.

7. The system of claim 6, wherein the request arbiter of the core logic device is to implement a common, distributed arbitration mechanism.

8. A graphics controller, comprising:

a first bus interface to receive accelerated graphics port (AGP) transaction requests from a core logic device;

a request queue coupled to the first bus interface to buffer received AGP transaction requests;

a second bus interface to exchange requests for access to the first bus interface between the core logic device and a graphics controller; and

a request arbiter coupled to the second bus interface to arbitrate access to the first bus interface.

9. The graphics controller of claim 8, further comprising:

a third bus interface to initiate data transactions by the graphics controller and to receive data transactions initiated by the core logic device;

a fourth bus interface to exchange requests for access to the third bus interface between the core logic device and the graphics controller; and

a data transaction arbiter coupled to the fourth bus interface to arbitrate access to the fourth bus interface.

10. The graphics controller of claim 8, wherein the request arbiter of the core logic device is to implement a common, distributed arbitration mechanism.

11. A system, comprising:

a first graphics controller;

an accelerated graphics port (AGP) bus coupled to the first graphics controller; and

a second graphics controller coupled to the AGP bus, wherein the first graphics controller and the second graphics controller being capable of initiating AGP commands to be serviced by the other.

12. The system of claim 11, wherein the first graphics controller comprises an integrated graphics controller.

13. The system of claim 12, wherein the integrated graphics controller comprises:

a transaction request interface coupled to a sideband address port to receive AGP transaction requests from an upgrade graphics controller associated with an expansion card and to transmit the AGP transaction requests to the upgrade graphics controller; and

a data transaction initiation interface coupled to a grant signal to exchange requests for access to the transaction request interface between the upgrade graphics controller and the integrated graphics controller.

14. The system of claim 11, wherein the second graphics controller comprises a discrete graphics controller.

15. The system of claim 14, wherein the discrete graphics controller comprises:

a transaction request interface coupled to a sideband address port to receive the AGP transaction requests from a core logic device and to transmit the AGP transaction requests to the core logic device;

an inbound transaction request queue coupled to the transaction request interface, the inbound transaction request queue to buffer the received AGP transaction requests; and

a data transaction initiation interface coupled to a grant signal to exchange requests for access to the transaction request interface between the core logic device and the graphics controller.

16. A method, comprising:

receiving an accelerated graphics port (AGP) transaction request at a first graphics controller, the AGP transaction request received from a second graphics controller;

buffering the AGP transaction request in a request queue using the first graphics controller; and

initiating a data transaction in response to the AGP transaction request using the first graphics controller.

17. The method of claim 16, wherein the first graphics controller comprises an integrated graphics controller and the second graphic controller comprises a graphics controller residing on an expansion card.

18. The method of claim 16, wherein the first graphics controller comprises a graphics controller residing on an expansion card and the second graphics controller comprises an integrated graphics controller.